

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC AND FIRST CLASS MAIL

November 30, 2007

TO:

Parties and Intervenors

FROM:

S. Derek Phelps, Executive Director

RE:

DOCKET NO. 337 - Cellco Partnership d/b/a Verizon Wireless application for

a Certificate of Environmental Compatibility and Public Need for the

construction, maintenance and operation of a telecommunications facility located

off North Street (Route 63), Goshen, Connecticut.

As stated at the hearing in Goshen on August 9, 2007, after the Council issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties and Intervenors may file written comments with the Connecticut Siting Council on the Draft Findings of Fact issued on this docket by December 6, 2007.

SDP/cm

Enclosure



DOCKET NO. 337 - Cellco Partnership d/b/a Verizon Wireless }
application for a Certificate of Environmental Compatibility and
Public Need for the construction, maintenance and operation of a }
telecommunications facility located off North Street (Route 63),
Goshen, Connecticut. }

Connecticut

November 21, 2007

DRAFT

Findings of Fact

Introduction

- 1. Pursuant to Chapter 277a, Sections 16-50g et seq. of the Connecticut General Statutes (CGS), as amended, and Section 16-50j-1 et seq. of the Regulations of Connecticut State Agencies (RCSA), Cellco Partnership d/b/a Verizon Wireless (Cellco) applied to the Connecticut Siting Council (Council) on May 8, 2007 for the construction, operation, and maintenance of a telecommunications facility to be located off North Street (Route 63) in the Town of Goshen, Connecticut. (Cellco 1, p. 1)
- 2. Cellco is a Delaware Partnership with an administrative office located at 99 East River Drive, East Hartford, Connecticut. Cellco is licensed by the Federal Communications Commission (FCC) to operate a wireless telecommunications system in Connecticut. The operation of wireless telecommunications systems and related activities are Cellco's sole business in Connecticut. (Cellco 1, p. 4)
- 3. The party in this proceeding is the applicant. (Transcript, August 9, 2007, 3:20 p.m. [Tr. 1], p. 5)
- 4. Cellco's proposed facility would provide coverage along Route 63 and portions of Route 4 as well as on local roads in the central portion of Goshen. (Cellco 1, pp. 1-2)
- 5. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a public hearing on August 9, 2007, beginning at 3:20 p.m. and continuing at 7:00 p.m. in Goshen, Connecticut. (Tr. 1, p. 2 ff.)
- 6. The Council re-opened the public hearing after it was closed on August 9, 2007 and held the re-opened hearing on October 16, 2007 beginning at 1:05 p.m. in Hearing Room Two, Ten Franklin Square in New Britain. The hearing was re-opened to consider information about the possible presence of State listed species in the vicinity of Cellco's proposed site. (Transcript, October 16, 2007, 1:05 p.m. [Tr. 3], pp. 2-3)
- 7. The Council and its staff conducted an inspection of the proposed site on August 9, 2007, beginning at 2:00 p.m. The applicant flew a balloon from 8:00 a.m. until 5:00 p.m. at the proposed site to simulate the height of the proposed tower. Weather conditions were excellent for a balloon flight with minimal winds and good visibility. (Tr. 1, pp. 17-18)

- 8. Pursuant to CGS § 16-50*l*(b), notice of Cellco's intent to submit this application was published on May 3 and 4, 2007 in The Waterbury Republican-American. (Cellco 1, p. 5)
- 9. In accordance with CGS § 16-50/(b), Cellco sent notices of its intent to file an application with the Council to each person appearing of record as owner of property abutting the property on which the site is located. (Cellco 1, p. 5; Attachment 4)
- 10. Cellco received the certified mail return receipts from all of the abutting property owners to whom notices were sent. (Cellco 6, Response 6)
- 11. On July 24, 2007, Cellco installed a 4-foot by 8-foot sign, informing the general public of its pending application, at the proposed location of the facility's driveway. (Tr. 1, p. 18)
- 12. Pursuant to CGS § 16-50*l* (b), Cellco provided notice to all federal, state and local officials and agencies listed therein. (Cellco 1, p. 5; Attachment 2)

State Agency Comment

- 13. Pursuant to CGS § 16-50*l*, the Council solicited comments on Cellco's application from the following state departments and agencies: Department of Environmental Protection, Department of Public Health, Council on Environmental Quality, Department of Public Utility Control, Office of Policy and Management, Department of Economic and Community Development, and the Department of Transportation. The Council's letters requesting comments were sent on June 29 and August 10, 2007. (CSC Hearing Package dated June 29, 2007; CSC Letter to State Department Heads dated August 10, 2007)
- 14. The Connecticut Department of Transportation (ConnDOT) responded to the Council's solicitation with no comment. (ConnDOT Letter dated July 30, 2007)
- 15. Besides the response received from ConnDOT, no other comments were received from any state agencies. (Record)

Municipal Consultation

- 16. Cellco representatives met with Robert P. Valentine, First Selectman of the Town of Goshen, on March 2, 2007 to discuss its proposed facility. At this meeting, First Selectman Valentine received a technical report summarizing Cellco's plans for its Goshen facility. (Cellco 1, pp. 16-17)
 - 17. Cellco made a formal presentation about its planned facility at a joint meeting of Goshen's Board of Selectman and Planning and Zoning Commission on May 1, 2007. (Cellco 1, p. 17)
 - 18. At the joint meeting of the Board of Selectmen and Planning and Zoning Commission, town officials indicated an interest in using the proposed tower for the town's emergency service and municipal communications antennas. (Cellco 1, p. 17)

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- 19. Goshen's interest in placing a town antenna on Cellco's tower was confirmed in a letter from the town's first selectman. (Cellco 3, Letter from Robert Valentine, Goshen First Selectman, dated June 5, 2007)
- 20. Cellco would make space available on its proposed tower and within its equipment compound to the Town of Goshen at no charge. (Cellco 1, p. 10; Cellco 4, Letter from Sandy Carter, Cellco, in response to Goshen First Selectman's letter, dated June 14, 2007)
- 21. At the Council's public hearing, Goshen's First Selectman expressed his preference that Cellco's tower not be disguised as a tree as proposed in the application. (Tr. 1, pp. 6-7)
- 22. Goshen's communications system has some dead spots in the vicinity of North Goshen Road that would be eliminated if the town were to locate antennas on Cellco's proposed tower. (Tr. 1, p. 7)

Public Need for Service

- 23. In its Report and Order issued May 4, 1981 in FCC Docket No. 79-318, the FCC recognized the public need for technical improvement, wide-area coverage, high quality service and a degree of competition in mobile telephone service. (Cellco 1, p. 5)
- 24. The federal Telecommunications Act of 1996 (Act), a federal law passed by the United States Congress, recognized a nationwide public need for high-quality wireless telecommunication services. The Act also promoted competition among wireless service providers, tried to foster lower prices for consumers, and encouraged the rapid deployment of new telecommunications technologies. (Cellco 1, p. 6)
- 25. Cellco's proposed facility off of North Road (Route 63) would be part of its expanding wireless telecommunications network envisioned by the Act. (Cellco 1, p. 6)
- 26. Cellco holds a license issued by the FCC to provide Personal Communications Service (PCS) in Litchfield County. (Cellco 1, p. 7)
- 27. Cellco's proposed Goshen facility would not enlarge its FCC-authorized service area. (Cellco 1, p. 7)
- 28. In issuing cellular licenses, the federal government has preempted the determination of public need for cellular service by the states, and has established design standards to ensure technical integrity and nationwide compatibility among all systems. (Council Administrative Notice, Telecommunications Act of 1996)
- 29. The Telecommunications Act of 1996 prohibits local and state bodies from discriminating among providers of functionally equivalent services. (Council Administrative Notice, Telecommunications Act of 1996)

- 30. The Telecommunications Act of 1996 prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions. This Act also blocks the Council from prohibiting or acting with the effect of prohibiting the provision of personal wireless service. (Council Administrative Notice, Telecommunications Act of 1996)
- 31. In an effort to ensure the benefits of wireless technologies to all Americans, Congress enacted the Wireless Communications and Public Safety Act of 1999 (the 911 Act). The purpose of this legislation was to promote public safety through the deployment of a seamless, nationwide emergency communications infrastructure that includes wireless communications services. (Council Administrative Notice, Wireless Communications and Public Safety Act of 1999)
- 32. Cellco's antennas would comply with the 911 Act requirements. (Cellco 6, Response 2)

Site Selection

33. Cellco investigated seven sites as possible locations for its proposed facility. These sites and the respective determinations of their suitability are listed below.

| Address | Suitability | | |
|---------------------------------------|--|--|--|
| North Street (Brass Mountain), Goshen | Site of proposed facility | | |
| Goshen Congregational Church | Cellco explored installation of antennas in this | | |
| 8 | church's steeple. SHPO determined that the | | |
| | extensive rebuilding required to accommodate | | |
| | the antennas would have an adverse effect on | | |
| | church's historic character. | | |
| 228 Weed Road | This Site is located south of Route 4, | | |
| | approximately 2 ½ miles east of Route 63; it | | |
| | would not satisfy Cellco's coverage objectives. | | |
| 495 North Street | This property is a residential parcel located east | | |
| | of North Street and north of Cellco's proposed | | |
| | site. Topography prevents this site from | | |
| | satisfying Cellco's coverage objectives. | | |
| 211 North Street | This is a residential parcel west of Route 63, ½ | | |
| | mile south of Cellco's proposed site; its low | | |
| y | ground elevation prevents it from satisfying | | |
| | Cellco's coverage objectives. | | |
| 250 North Street | Residential parcel west of Route 63, ½ mile | | |
| | south of Cellco's proposed site; low ground | | |
| | elevation prevents this site from satisfying | | |
| | Cellco's coverage objectives. | | |
| North Street – CL&P Structures | Existing CL&P transmission line runs parallel | | |
| | to North Street, but lower elevation of line | | |
| | means comparable coverage is not possible | | |
| e " | from this line. | | |

(Cellco 1, Attachment 8, pp. 2-3)

- 34. Cellco first issued a search ring in this area in June, 2004. Its ring was roughly centered on Brass Mountain. (Cellco 6, Response 14)
- 35. Cellco maintains two existing communications facilities located within four miles of its Goshen search area. The two facilities are located at 113 Brush Hill Road in Goshen (Docket 260) and at 136 Wright Road in Torrington. Neither of these locations would be able to provide the coverage or capacity relief Cellco is seeking to achieve from the proposed location. (Cellco 1, Attachment 8, p. 1)
- 36. Cellco maintains that there are no viable and available alternative technologies to provide the coverage and service that its proposed facility would provide. (Cellco 1, p. 9)
- 37. The transmission line structures that run parallel to Route 63 in the vicinity of the proposed facility are approximately 70 to 80 feet tall. Cellco would need at least two structures with extensions to 120 feet to provide coverage that would be comparable to the coverage achievable from the proposed site. (Cellco 7, Response 15)
- 38. There is a 260-foot guyed lattice tower on Ivy Mountain, located more than two miles to the northeast of Cellco's proposed site. The tower does not appear in any of the Council's databases nor in the FCC's antenna structure registration database. Signage on the equipment shelter at the base of the tower identifies the antenna owner as "Army Radio." Even with antennas at 199 feet above ground level on this tower, Cellco could not cover Route 63, its primary objective. (Cellco Late File Exhibit, Response No. 2)
- 39. There is a 180-foot self-supporting lattice tower on Mohawk Mountain operated by the Connecticut Department of Public Safety. Cellco is not on this tower, which is nearly four miles from its proposed site in Goshen. Even with antennas at 199 feet above ground level, Cellco could not cover Route 63 from this location. (Cellco Late File Exhibit, Response No. 3)

Site Description

- 40. Cellco's proposed site is located on a 233-acre parcel off of North Road (Route 63) in Goshen. The parcel is owned by ARCA LLC and is undeveloped. (Cellco 1, p. i; p.2; Attachment 1)
- 41. The parcel is zoned RA-5 (Residential-Agriculture). Wireless communications facilities are permitted in RA-5 zones subject to Special Permit approval. (Cellco 1, p. 2; Town of Goshen Zoning Regulations bulk filed)
- 42. Cellco's facility would be located within a 100-foot by 100-foot lease parcel in the southwesterly portion of the ARCA property. Cellco would construct a 150-foot tall steel monopole tower that would be disguised as a pine tree. Simulated tree branches would extend to an overall height of 157 above ground level (AGL). Cellco would install twelve panel antennas at the top of the tower. The antennas would extend to an overall height of 153 feet AGL. Cellco's ground equipment would be located within a 12-foot by 30-foot equipment shelter. (Cellco 1, p. 2)

- 43. Although Cellco proposed building a tower designed to appear as a pine tree, it would be amenable to building a plain steel monopole as preferred by Goshen's First Selectman. (Tr. 1, p. 33)
- 44. The proposed tower would be located at 41° 51' 22.78" N latitude and 73° 14' 29.69" W longitude. Its elevation at ground level would be approximately 1,599 feet above mean sea level. (Cellco 1, Attachment 1, p. 4)
- 45. Cellco's tower would be designed in accordance with the specifications of the Electronic Industries Association Standard EIA/TIA-222-F-96 "Structural Standards for Steel Antenna Towers and Antenna Support Structures." (Cellco 6, Response 12)
- 46. The tower would be designed to accommodate three additional wireless carriers as well as the Town of Goshen's antennas. (Cellco 1, Attachment 1, Drawing C-2)
- 47. Either T-arm mounts or a platform would be acceptable to Cellco for mounting its antennas on the tower. (Tr. 1, p. 18)
- 48. If Cellco were to flush-mount its antennas, it would need an additional ten feet of tower height to connect to its Goshen South site. (Tr. 1, p. 19)
- 49. Cellco's equipment compound would measure 42 feet by 70 feet and would be enclosed by an eight-foot high chain link fence. (Cellco 1, Attachment 1, Drawings C-2 and C-3)
- 50. To develop this site, Cellco would need 4,900 cubic yards of cut and 650 cubic yards of fill. (Cellco 6, Response 11)
- 51. Vehicular access to the site would extend from North Road over a gravel driveway that would be approximately 2,075 long. The driveway would follow an existing dirt road that would be widened, re-graded, and resurfaced to accommodate Cellco's needs. (Cellco 1, p. 2)
- 52. The access road would be paved approximately 1,635 feet beginning on the east side of the CL&P right-of-way that crosses the road to Cellco's equipment compound. (Tr. 1, pp. 49-50)
- 53. Utilities would be brought to the site from North Road along the shoulder of the access road. (Cellco 6, Response 22)
- 54. Utilities would be installed underground from North Road to the site. (Tr. 1, p. 30)
- 55. It is likely that blasting would not be required to develop this site. (Cellco 6, Response 18)
- 56. The tower's setback radius would lie completely within the ARCA parcel. (Cellco 1, Attachment 1, Drawing C-1A)
- 57. The nearest residence to the proposed site is located approximately 735 feet to the west. It is owned by Vicki and Allen Kinsella. (Cellco 1, p. 13; Attachment 1, Drawing C-1A)

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- 58. There are three residences located within 1,000 feet of Cellco's proposed site. (Cellco 1, p. 13)
- 59. The vicinity of the proposed site is generally undeveloped or scattered residential properties. (Cellco 1, Attachment 1, p. 5)
- 60. The estimated cost of the facility is:

| Cell site radio equipment | \$450,000 |
|---|-----------|
| Tower, coax, and antennas costs | 200,000 |
| Power systems costs | 20,000 |
| Equipment building costs | 50,000 |
| Miscellaneous costs (include site prep) | 130,000 |
| Total | \$850,000 |

(Cellco 1, p. 18)

Environmental Considerations

- 61. Cellco's proposed facility would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (Cellco 1, Attachment 10 - Letter from Deputy State Historic Preservation Officer dated January 16, 2007)
- 62. Staff members of DEP conducted a visit to Cellco's proposed site on September 26, 2007. During this visit, the DEP representatives observed Balsam fir (*Abies balsamea*) seedlings and Naked miterwort (*Mitella nuda*) in the wetland area at the base of the slope of Brass Mountain, within a hundred feet downstream of the existing wetland crossing. The representatives collected samples of currant (*Ribes*) species, one of which may be a Bristly Black Currant, which is listed as a State Endangered species. The species could not be conclusively identified since there were no flowers or fruit on the plants. Balsam fir is listed as a State Endangered species, and Naked miterwort is listed as a State Special Concern species. (Email correspondence from Nancy Murray, DEP regarding September 26, 2007 Site Visit to proposed Goshen site; Tr. 3, pp. 12, 26)
- 63. In order to protect the observed species during construction, DEP recommended establishing and maintaining erosion and siltation controls during the entire project and using best management practices, including having a contingency response plan during construction. DEP also recommended having extra materials on site for rapid response to erosion and siltation events and appointing an independent site inspector to monitor construction activities. (Email correspondence from Nancy Murray, DEP regarding September 26, 2007 Site Visit to proposed Goshen site)
- 64. Cellco agrees with DEP's recommendations and would implement them. In addition, Cellco would have a worker education seminar prior to construction to ensure its construction crew is aware of the sensitivity of the listed species. (Tr. 3, p. 13)

- 65. Cellco made revisions to its original site plan to address DEP's concerns. It shifted the wetland crossing to the north approximately 16 feet. It would deploy a sandwich type siltation fence as an additional erosion barrier during construction. It would install 300 linear feet of orange construction fence to highlight the boundaries of the sensitive area. It also re-designed the proposed drainage swales alongside the access road to avoid the potential of sedimentation build up.(Tr. 3, pp. 14-15)
- 66. Cellco would be amenable to hiring an independent inspector to monitor construction activities. (Tr. 3, p. 21)
- 67. An estimated 167 trees with a diameter at breast height of six inches or more would be removed to construct the access driveway, utility right-of-way, and facility compound. (Cellco 6, Response 10)
- 68. There are no wetlands or watercourses near Cellco's proposed equipment compound. (Cellco 1, p. 16)
- 69. The facility's access road would cross a forested wetland corridor and an intermittent watercourse. This area is located approximately 150 east of North Road. Proposed improvements to the existing dirt road would result in permanent wetland fill of approximately 1,880 square feet. These improvements would consist of placement of fill material to create a stable road base and the replacement of the existing single 12-inch culvert with two 24-inch culverts. The wetland fill would be placed within the existing disturbed and degraded wetland crossing. (Cellco 1, p. 16; Attachment 11)
- 70. The existing culvert can constrict the flow of the intermittent watercourse during peak flow conditions. The proposed culverts would eliminate this problem. (Tr. 1, pp. 22-23)
- 71. Installation of new 24-inch culverts would remove the scour hole created by the existing culvert. Trap rock that has been placed in the streambed to minimize erosion would be replaced with native stream bed material. The new culverts would be buried 12 inches below the existing streambed elevation. Streambed material would be placed in the culverts to recreate habitat and facilitate the passage of small finfish and other aquatic organisms through the culvert beneath the road crossing. (Tr. 1, pp. 23-25)
- 72. Cellco would establish and maintain soil erosion and sedimentation control measures consistent with the Connecticut Soil Erosion Control Guidelines established by the Council for Soil and Water Conservation throughout the construction of the facility. (Cellco 1, p. 16)
- 73. Cellco's ground equipment would include a 210-gallon diesel fuel tank for its diesel generator. The fuel tank would be double-walled and include a lead detection monitoring system. (Cellco 1, p. 3)
- 74. Cellco would need to obtain an air permit for the installation of the diesel generator at its facility. (Cellco 1, p. 18)
- 75. An air-space analysis conducted by Cellco indicated that its proposed tower would not constitute an obstruction or hazard to air navigation and would not require obstruction marking or lighting. (Cellco 1, p. 17; Attachment 12)

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76. According to calculations performed by Cellco, the maximum power density from the radio frequency emissions of Cellco's proposed antennas would be 2.46% of the standard for Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas would be pointed at the base of the tower and all channels would be operating simultaneously. (Cellco 1, p. 14)

Visibility

- 77. Cellco's tower at the proposed facility would be visible year-round from approximately 243 acres in the surrounding vicinity. (Cellco 1, Attachment 9, p. 4)
- 78. Much of the acreage from which the proposed tower would be visible occurs over open water in Tyler Lake and West Side Pond. Visibility over these water bodies accounts for approximately 140 of the 243-acre total. (Cellco 1, Attachment 9, p. 4)
- 79. Tyler Lake is approximately 6,800 feet southwest of Cellco's proposed site. Views of the tower from the western portion of the lake would consist of the upper-half of the tower. (Cellco 1, Attachment 9)
- 80. West Side Pond is approximately 3,000 feet to the west of Cellco's proposed site. Views of the tower from the western portion of the pond would consist of the upper-half of the tower. (Cellco 1, Attachment 9)
- 81. Approximately 35 residences would have at least partial year-round views of the proposed tower. This total includes three residences on Hill House Road; one residence off Howe Road; three residences located along 5½ Mile Road; 14 residences on West Side Road; one residence on Bartholomew Hill Road; two residences on Sucker Brook Road; one residence on School Hill Road; and approximately 10 residences located in the Tyler Lake Heights area nearly two miles to the southwest. (Cellco 1, Attachment 9, p. 5)
- 82. The tower would be seasonally visible from an additional 93 acres. The area of seasonal visibility would include portions of Route 63, Hill House Road, and West Side Road. (Cellco 1, Attachment 9, p. 5)
- 83. Approximately six additional residential properties would have seasonal views of the tower. (Cellco 1, Attachment 9, p. 5)

84. The visibility of the proposed site from different vantage points in the surrounding vicinity is summarized in the following table. The locations of the vantage points listed are identified by their corresponding number in the Visual Resource Evaluation Report contained in Attachment 9 of Cellco's application and Figure 4 of this document.

| Location | Site Visible | Approx. Portion of (150') Tower Visible (ft.) | Approx. Distance and Direction to Tower |
|---|-----------------|---|---|
| 1 - Route 63, south of Hill House Road | Yes | Upper 80' | 3400 feet; SE |
| 2 – Howe Road, south of Hill House Road | Yes | Upper 80' | 4400 feet; SE |
| 3 − 5 ½ Mile Road, south of Hill House Road | Yes | Upper 80' | 6900 feet; SE |
| 4 − 5 ½ Mile Road | Yes | Upper 80' | 5750 feet; SE |
| 5 − 5 ½ Mile Road, north of Hill House Road | Yes | Upper 60' | 7650 feet; SE |
| 6 – 18 Hill House Road | Yes | Upper 80' | 3900 feet; SE |
| 7 – 378 West Side Road | Yes | Upper 80' | 5070 feet; NE |
| 8 – 315 Bartholomew Hill Road | Yes | Upper 80' | 5500 feet; NE |
| 9 – Bartholomew Hill Road, east of Sucker Brook Road | Yes | Upper 60' | 6550 feet; NE |
| 10 – 39 Sucker Brook Road | Yes | Upper 80' | 6180 feet; NE |
| 11 – 157 West Side road | Yes | Upper 80' | 4220 feet; NE |
| 12 – West Side Road | Yes | Upper 80' | 4330 feet; NE |
| 13 – Route 4, east of West Street | Yes | Upper 50' | 9240 feet; N |
| 14 – West Side Road at School Hill Road | Yes | Upper 40' | 4280 feet; NE |
| 15 – 173 School Hill Road | Yes | Upper 80' | 6230 feet; NE |
| 16 – 15 Tyler Heights | Yes | Upper 30' | 10,400 feet; NE |

(Cellco 1, Attachment 9 – Photographic Simulations)

Existing and Proposed Wireless Coverage

85. In Litchfield County, Cellco is licensed to operate in the following frequencies:

PCS F Block – 1970 to 1975 MHz PCS C3 Block – 1975 to 1980 MHz

(Cellco 6, Response 1)

86. At the time of application, Cellco had only limited coverage in the Goshen area. From its antennas located on the monopole at 113 Brush Hill Road in Goshen, Cellco covers a portion of Route 63 south of Route 4 near the Litchfield town line. From its site at 136 Wright Road in Torrington, Cellco covers a short stretch of Route 4 in Goshen. (Cellco 1, p. 2; Attachment 6)

- 87. From its proposed site, Cellco would cover approximately 4.5 miles on Route 63 and 1.8 miles on Route 4. (Cellco 1, p. 2)
- 88. Cellco's antennas would cover an overall area of 13.3 square miles from the proposed site. (Cellco 1, p. 2)
- 89. Cellco designs its wireless systems for a signal strength of -85 dBm for in-vehicle coverage. (Cellco 6, Response 7; Tr. 1, p. 21)
- 90. For in-building coverage, Cellco's design signal strength is -75 dBm. (Tr. 1, p. 22)
- 91. Cellco's existing signal strength in the area that would be covered from this site is far below 85 dBm. (Cellco 6, Response 8)
- 92. From this location, Cellco's antennas would hand off signals to adjacent facilities located at:

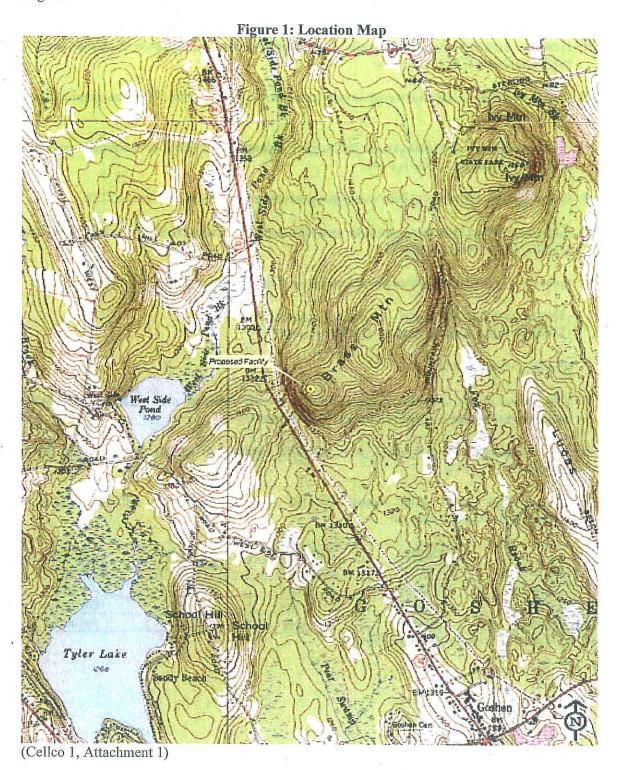
136 Wright Road, Torrington – 4.2 miles to southeast 113 Brush Hill Road, Goshen – 4.1 miles to south

(Cellco 6, Response 3)

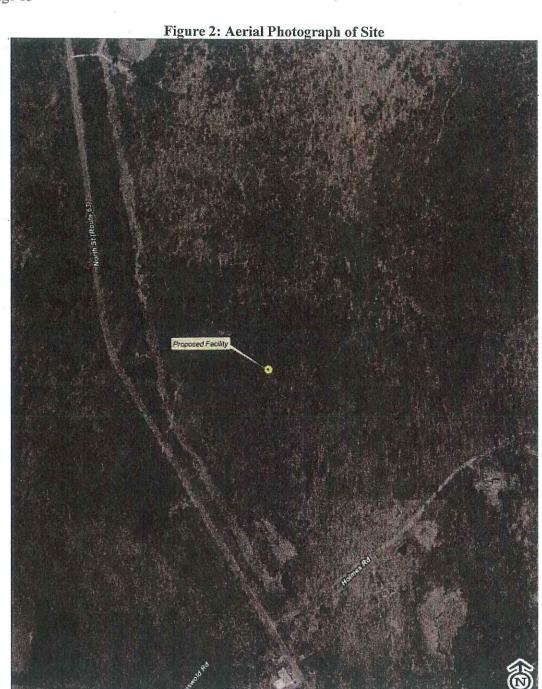
- 93. The lowest height at which Cellco could locate its antennas and achieve its coverage objectives at this site is 150 feet. (Cellco 6, Response 5)
- 94. At lower heights, Cellco would have difficulty handing off signals to its Goshen South facility. (Tr. 1, p. 31)
- 95. The coverage Cellco could expect from the proposed location at different heights is summarized in the table below.

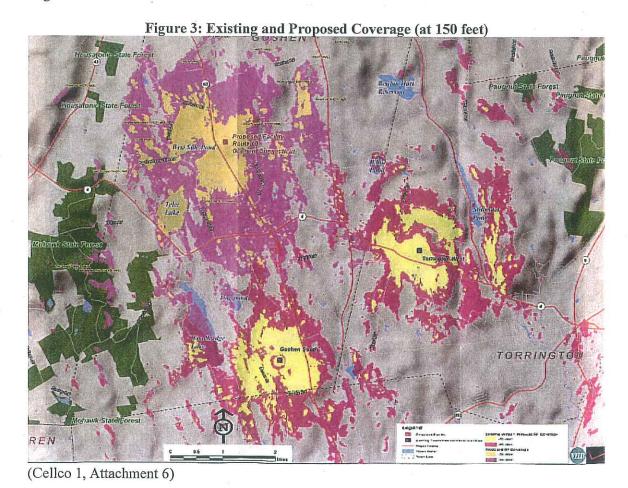
| | 150 feet | 140 feet | 130 feet | 120 feet |
|------------------|--------------|--------------|---------------|--------------|
| Overall coverage | 13.3 sq. mi. | 12.2 sq. mi. | 10.47 sq. mi. | 8.39 sq. mi. |
| Rt 63 coverage | 4.5 miles | 4.2 miles | 3.9 miles | 2.4 miles |
| Rt 63 cover gap | No gap | 0.15 miles | 0.4 miles | 0.85 miles |
| Rt 4 coverage | 1.8 miles | 1.6 miles | 1.1 miles | 0.6 miles |

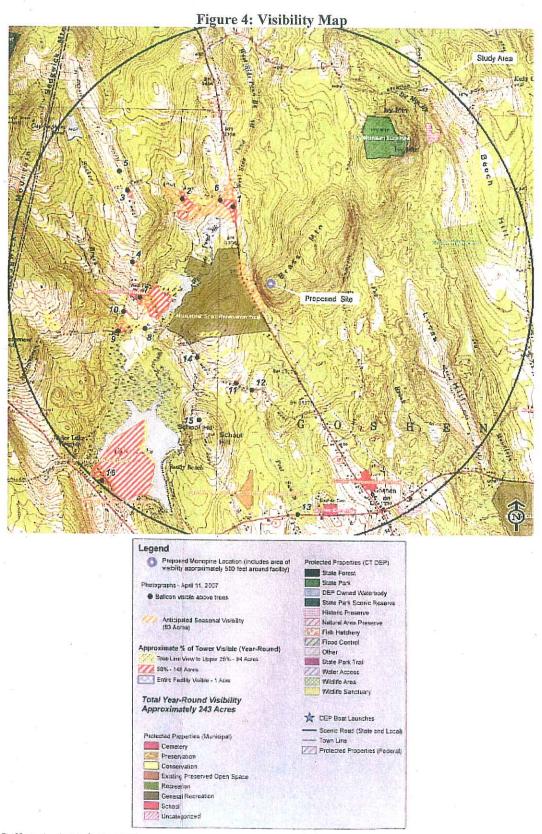
(Cellco Late File Exhibit, Response No. 1)



(Cellco 1, Attachment 1)







(Cellco 1, Attachment 9)